**EXHIBIT B**

**Pending Claims**

38. (Amended) A recombinant DNA molecule comprising the portion of a DNA sequence selected from the group consisting of the following subcloned fragments that hybridizes to at least one of the DNA inserts of Z-pBR322 (Pst)/HcIF-II-206 and Z-pBR322 (Pst)/HcIF-SN35-AHL6:

HchrIF-A, the subcloned HindIII fragment of chr 3 in E.coli HB101;

HchrIF-B, the subcloned EcoRI fragment of chr 12 in E.coli HB101;

HchrIF-C, the subcloned HindIII fragment of chr 12 in E.coli HB101;

HchrIF-D, the subcloned EcoRI fragment of chr 13 in E.coli HB101;

HchrIF-E, the subcloned EcoRI fragment of chr 23 in E.coli HB101;

HchrIF-F, the subcloned HindIII fragment of chr 23 in E.coli HB101;

HchrIF-G, the subcloned EcoRI fragment of chr 26 in E.coli HB101; and

HchrIF-H, the subcloned HindIII fragment of chr 26 in E.coli HB101.

40. (Amended) A recombinant DNA molecule comprising a DNA sequence selected from the group consisting of DNA sequences of the formula:

TTACTGGTGGCCCTCCTGGTGCTCAGCTGCAAGTCAAGCTGCTCTGTGGGCTGTGAT
CTGCCTCAAACCCACAGCCTGGGTAGCAGGAGGACCTTGATGCTCCTGGCACAGATG
AGGAGAATCTCTCTTTTCTCCTGCTTGAAGGACAGACATGACTTTGGATTTCCCCAG

GAGGAGTTTGGCAACCAGTTCCAAAAGGCTGAAACCATCCCTGTCCTCCATGAGATG

ATCCAGCAGATCTTCAATCTCTTCAGCACAAAGGACTCATCTGCTGCTTGGGATGAG

ACCCTCCTAGACAAATTCTACACTGAACTCTACCAGCAGCTGAATGACCTGGAAGCC

TGTGTGATACAGGGGGTGGGGGTGACAGAGACTCCCCTGATGAAGGAGGACTCCATT

CTGGCTGTGAGGAAATACTTCCAAAGAATCACTCTCTATCTGAAAGAGAAGAAATAC

AGCCCTTGTGCCTGGGAGGTTGTCAGAGCAGAAATCATGAGATCTTTTTCTTTGTCA

ACAAACTTGCAAGAAAGTTTAAGAAGTAAGGAA

and

TGTGATCTGCCTCAAACCCACAGCCTGGGTAGCAGGAGGACCTTGATGCTCCTGGCA

CAGATGAGGAGAATCTCTCTTTTCTCCTGCTTGAAGGACAGACATGACTTTGGATTT

CCCCAGGAGGAGTTTGGCAACCAGTTCCAAAAGGCTGAAACCATCCCTGTCCTCCAT

GAGATGATCCAGCAGATCTTCAATCTCTTCAGCACAAAGGACTCATCTGCTGCTTGG

GATGAGACCCTCCTAGACAAATTCTACACTGAACTCTACCAGCAGCTGAATGACCTG

GAAGCCTGTGTGATACAGGGGGTGGGGGTGACAGAGACTCCCCTGATGAAGGAGGAC

TCCATTCTGGCTGTGAGGAAATACTTCCAAAGAATCACTCTCTATCTGAAAGAGAAG

AAATACAGCCCTTGTGCCTGGGAGGTTGTCAGAGCAGAAATCATGAGATCTTTTTCT

TTGTCAACAAACTTGCAAGAAAGTTTAAGAAGTAAGGAA.

41. (Amended) A recombinant DNA molecule comprising a DNA sequence selected from the group consisting of DNA sequences of the formula:

ATGGCCCTGTCCTTTTCTTTACTGATGGCCGTGCTGGTGCTCAGCTACAAATCCATC

TGTTCTCTGGGCTGTGATCTGCCTCAGACCCACAGCCTGGGTAATAGGAGGACCTTG

ATACTCCTGCAACAAATGGGAAGAATCTCTCATTTCTCCTGCCTGAAGGACAGACAT

GATTTCGGATTCCCCGAGGAGGAGTTTGATGGCCACCAGTTCCAGAAGACTCAAGCC

ATCTCTGTCCTCCATGAGATGATCCAGCAGACCTTCAATCTCTTCAGCACAGAGGAC

TCATCTGCTGCTTGGGAACAGAGCCTCCTAGAAAAATTTTCCACTGAACTTTACCAG

CAACTGAATGACCTGGAAGCATGTGTGATACAGGAGGTTGGGGTGGAAGAGACTCCC

CTGATGAATGTGGACTCCATCCTGGCTGTGAGGAAATACTTCCAAAGAATCACTCTT

TATCTAACAGAGAAGAAATACAGCCCTTGTGCCTGGGAGGTTGTCAGAGCAGAAATC

ATGAGATCCCTCTCGTTTTCAACAAACTTGCAAAAAAGATTAAGGAGGAAGGAT

and

TGTGATCTGCCTCAGACCCACAGCCTGGGTAATAGGAGGACCTTGATACTCCTGCAA

CAAATGGGAAGAATCTCTCATTTCTCCTGCCTGAAGGACAGACATGATTTCGGATTC

CCCGAGGAGGAGTTTGATGGCCACCAGTTCCAGAAGACTCAAGCCATCTCTGTCCTC

CATGAGATGATCCAGCAGACCTTCAATCTCTTCAGCACAGAGGACTCATCTGCTGCT

TGGGAACAGAGCCTCCTAGAAAAATTTTCCACTGAACTTTACCAGCAACTGAATGAC

CTGGAAGCATGTGTGATACAGGAGGTTGGGGTGGAAGAGACTCCCCTGATGAATGTG

GACTCCATCCTGGCTGTGAGGAAATACTTCCAAAGAATCACTCTTTATCTAACAGAG

AAGAAATACAGCCCTTGTGCCTGGGAGGTTGTCAGAGCAGAAATCATGAGATCCCTC

TCGTTTTCAACAAACTTGCAAAAAAGATTAAGGAGGAAGGAT.

42. (Amended) The recombinant DNA molecule according to any one of claims 38, 40 and 41, wherein said DNA sequence is operatively linked to an expression control sequence.

43. The recombinant DNA molecule according to claim 42, wherein said expression control sequence controls the expression of genes of prokaryotic or eukaryotic cells and their viruses.

44. The recombinant DNA molecule according to claim 43, wherein said expression control sequence is selected from the group consisting of a lac system, a $\beta$-lac system, a trp system, major operator and promoter regions of phage $\lambda$, and the control region of fd coat protein.

45. (Amended) A recombinant DNA molecule selected from the group consisting of C8-IFN-$\alpha$2, LAC-AUG($\alpha$2) and ß-lac-AUG($\alpha$2).

46. (Amended) A host cell transformed with at least one recombinant DNA molecule according to any one of claims 38 and 40-45.

47. The host cell of claim 46 selected from the group consisting of bacteria, yeasts, mouse or other animal hosts, and human tissue cells.

48. (Amended) A transformed host cell, wherein said host cell is E.coli HB101(Z-pBR322(Pst)/HcIF-II-206).

49. (Amended) A transformed host cell selected from the group consisting of HchrIF-A, wherein HchrIF-A is the subcloned HindIII fragment of chr 3 in E.coli HB101; HchrIF-B, wherein HchrIF-B is the subcloned EcoRI fragment of chr 12 in E.coli HB101; HchrIF-C, wherein HchrIF-C is the subcloned HindIII fragment of chr 12 in E.coli HB101;

HchrIF-D, wherein HchrIF-D is the subcloned EcoRI fragment of chr 13 in E.coli HB101; HchrIF-E, wherein HchrIF-E is the subcloned EcoRI fragment of chr 23 in E.coli HB101; HchrIF-F, wherein HchrIF-F is the subcloned HindIII fragment of chr 23 in E.coli HB101; HchrIF-G, wherein HchrIF-G is the subcloned EcoRI fragment of chr 26 in E.coli HB101; and HchrIF-H, wherein HchrIF-H is the subcloned HindIII fragment of chr 26 in E.coli HB101.

50. (Amended) A transformed host cell selected from the group consisting of E.coli DS410 (C8-IFN-α2), E.coli DS410 (LAC-AUG(α2)) and E.coli DS410 HB101 (ßlac-AUG(α2)).

51. (Amended) A method for producing a recombinant DNA molecule comprising a DNA sequence selected from the group consisting of DNA sequences of the formula:

TTACTGGTGGCCCTCCTGGTGCTCAGCTGCAAGTCAAGCTGCTCTGTGGGCTGTGAT
CTGCCTCAAACCCACAGCCTGGGTAGCAGGAGGACCTTGATGCTCCTGGCACAGATG
AGGAGAATCTCTCTTTTCTCCTGCTTGAAGGACAGACATGACTTTGGATTTCCCCAG
GAGGAGTTTGGCAACCAGTTCCAAAAGGCTGAAACCATCCCTGTCCTCCATGAGATG
ATCCAGCAGATCTTCAATCTCTTCAGCACAAAGGACTCATCTGCTGCTTGGGATGAG
ACCCTCCTAGACAAATTCTACACTGAACTCTACCAGCAGCTGAATGACCTGGAAGCC
TGTGTGATACAGGGGGTGGGGGTGACAGAGACTCCCCTGATGAAGGAGGACTCCATT
CTGGCTGTGAGGAAATACTTCCAAAGAATCACTCTCTATCTGAAAGAGAAGAAATAC
AGCCCTTGTGCCTGGGAGGTTGTCAGAGCAGAAATCATGAGATCTTTTTCTTTGTCA
ACAAACTTGCAAGAAAGTTTAAGAAGTAAGGAA;

TGTGATCTGCCTCAAACCCACAGCCTGGGTAGCAGGAGGACCTTGATGCTCCTGGCA

CAGATGAGGAGAATCTCTCTTTTCTCCTGCTTGAAGGACAGACATGACTTTGGATTT

CCCCAGGAGGAGTTTGGCAACCAGTTCCAAAAGGCTGAAACCATCCCTGTCCTCCAT

GAGATGATCCAGCAGATCTTCAATCTCTTCAGCACAAAGGACTCATCTGCTGCTTGG

GATGAGACCCTCCTAGACAAATTCTACACTGAACTCTACCAGCAGCTGAATGACCTG

GAAGCCTGTGTGATACAGGGGGTGGGGGTGACAGAGACTCCCCTGATGAAGGAGGAC

TCCATTCTGGCTGTGAGGAAATACTTCCAAAGAATCACTCTCTATCTGAAAGAGAAG

AAATACAGCCCTTGTGCCTGGGAGGTTGTCAGAGCAGAAATCATGAGATCTTTTTCT

TTGTCAACAAACTTGCAAGAAAGTTTAAGAAGTAAGGAA;

ATGGCCCTGTCCTTTTCTTTACTGATGGCCGTGCTGGTGCTCAGCTACAAATCCATC

TGTTCTCTGGGCTGTGATCTGCCTCAGACCCACAGCCTGGGTAATAGGAGGACCTTG

ATACTCCTGCAACAAATGGGAAGAATCTCTCATTTCTCCTGCCTGAAGGACAGACAT

GATTTCGGATTCCCCGAGGAGGAGTTTGATGGCCACCAGTTCCAGAAGACTCAAGCC

ATCTCTGTCCTCCATGAGATGATCCAGCAGACCTTCAATCTCTTCAGCACAGAGGAC

TCATCTGCTGCTTGGGAACAGAGCCTCCTAGAAAAATTTTCCACTGAACTTTACCAG

CAACTGAATGACCTGGAAGCATGTGTGATACAGGAGGTTGGGGTGGAAGAGACTCCC

CTGATGAATGTGGACTCCATCCTGGCTGTGAGGAAATACTTCCAAAGAATCACTCTT

TATCTAACAGAGAAGAAATACAGCCCTTGTGCCTGGGAGGTTGTCAGAGCAGAAATC

ATGAGATCCCTCTCGTTTTCAACAAACTTGCAAAAAAGATTAAGGAGGAAGGAT;

and

TGTGATCTGCCTCAGACCCACAGCCTGGGTAATAGGAGGACCTTGATACTCCTGCAA
CAAATGGGAAGAATCTCTCATTTCTCCTGCCTGAAGGACAGACATGATTTCGGATTC
CCCGAGGAGGAGTTTGATGGCCACCAGTTCCAGAAGACTCAAGCCATCTCTGTCCTC
CATGAGATGATCCAGCAGACCTTCAATCTCTTCAGCACAGAGGACTCATCTGCTGCT
TGGGAACAGAGCCTCCTAGAAAAATTTTCCACTGAACTTTACCAGCAACTGAATGAC
CTGGAAGCATGTGTGATACAGGAGGTTGGGGTGGAAGAGACTCCCCTGATGAATGTG
GACTCCATCCTGGCTGTGAGGAAATACTTCCAAAGAATCACTCTTTATCTAACAGAG
AAGAAATACAGCCCTTGTGCCTGGGAGGTTGTCAGAGCAGAAATCATGAGATCCCTC
TCGTTTTCAACAAACTTGCAAAAAAGATTAAGGAGGAAGGAT,

comprising the step of culturing a host cell containing at least one recombinant DNA molecule of claim 40 or 41 under conditions in which the host cell replicates the recombinant DNA molecule.

54. A DNA sequence coding for an α-type interferon selected from the group consisting of DNA sequences of the formula:

TTACTGGTGGCCCTCCTGGTGCTCAGCTGCAAGTCAAGCTGCTCTGTGGGCTGTGAT
CTGCCTCAAACCCACAGCCTGGGTAGCAGGAGGACCTTGATGCTCCTGGCACAGATG
AGGAGAATCTCTCTTTTCTCCTGCTTGAAGGACAGACATGACTTTGGATTTCCCCAG
GAGGAGTTTGGCAACCAGTTCCAAAAGGCTGAAACCATCCCTGTCCTCCATGAGATG
ATCCAGCAGATCTTCAATCTCTTCAGCACAAAGGACTCATCTGCTGCTTGGGATGAG
ACCCTCCTAGACAAATTCTACACTGAACTCTACCAGCAGCTGAATGACCTGGAAGCC
TGTGTGATACAGGGGGTGGGGGTGACAGAGACTCCCCTGATGAAGGAGGACTCCATT
CTGGCTGTGAGGAAATACTTCCAAAGAATCACTCTCTATCTGAAAGAGAAGAAATAC

AGCCCTTGTGCCTGGGAGGTTGTCAGAGCAGAAATCATGAGATCTTTTTCTTTGTCA

ACAAACTTGCAAGAAAGTTTAAGAAGTAAGGAA

and

TGTGATCTGCCTCAAACCCACAGCCTGGGTAGCAGGAGGACCTTGATGCTCCTGGCA

CAGATGAGGAGAATCTCTCTTTTCTCCTGCTTGAAGGACAGACATGACTTTGGATTT

CCCCAGGAGGAGTTTGGCAACCAGTTCCAAAAGGCTGAAACCATCCCTGTCCTCCAT

GAGATGATCCAGCAGATCTTCAATCTCTTCAGCACAAAGGACTCATCTGCTGCTTGG

GATGAGACCCTCCTAGACAAATTCTACACTGAACTCTACCAGCAGCTGAATGACCTG

GAAGCCTGTGTGATACAGGGGGTGGGGGTGACAGAGACTCCCCTGATGAAGGAGGAC

TCCATTCTGGCTGTGAGGAAATACTTCCAAAGAATCACTCTCTATCTGAAAGAGAAG

AAATACAGCCCTTGTGCCTGGGAGGTTGTCAGAGCAGAAATCATGAGATCTTTTTCT

TTGTCAACAAACTTGCAAGAAAGTTTAAGAAGTAAGGAA.

55. A DNA sequence coding for an α-type interferon selected from the group consisting of DNA sequences of the formula:

ATGGCCCTGTCCTTTTCTTTACTGATGGCCGTGCTGGTGCTCAGCTACAAATCCATC

TGTTCTCTGGGCTGTGATCTGCCTCAGACCCACAGCCTGGGTAATAGGAGGACCTTG

ATACTCCTGCAACAAATGGGAAGAATCTCTCATTTCTCCTGCCTGAAGGACAGACAT

GATTTCGGATTCCCCGAGGAGGAGTTTGATGGCCACCAGTTCCAGAAGACTCAAGCC

ATCTCTGTCCTCCATGAGATGATCCAGCAGACCTTCAATCTCTTCAGCACAGAGGAC

TCATCTGCTGCTTGGGAACAGAGCCTCCTAGAAAAATTTTCCACTGAACTTTACCAG

CAACTGAATGACCTGGAAGCATGTGTGATACAGGAGGTTGGGGTGGAAGAGACTCCC

CTGATGAATGTGGACTCCATCCTGGCTGTGAGGAAATACTTCCAAAGAATCACTCTT

TATCTAACAGAGAAGAAATACAGCCCTTGTGCCTGGGAGGTTGTCAGAGCAGAAATC

ATGAGATCCCTCTCGTTTTCAACAAACTTGCAAAAAAGATTAAGGAGGAAGGAT

and

TGTGATCTGCCTCAGACCCACAGCCTGGGTAATAGGAGGACCTTGATACTCCTGCAA

CAAATGGGAAGAATCTCTCATTTCTCCTGCCTGAAGGACAGACATGATTTCGGATTC

CCCGAGGAGGAGTTTGATGGCCACCAGTTCCAGAAGACTCAAGCCATCTCTGTCCTC

CATGAGATGATCCAGCAGACCTTCAATCTCTTCAGCACAGAGGACTCATCTGCTGCT

TGGGAACAGAGCCTCCTAGAAAAATTTTCCACTGAACTTTACCAGCAACTGAATGAC

CTGGAAGCATGTGTGATACAGGAGGTTGGGGTGGAAGAGACTCCCCTGATGAATGTG

GACTCCATCCTGGCTGTGAGGAAATACTTCCAAAGAATCACTCTTTATCTAACAGAG

AAGAAATACAGCCCTTGTGCCTGGGAGGTTGTCAGAGCAGAAATCATGAGATCCCTC

TCGTTTTCAACAAACTTGCAAAAAAGATTAAGGAGGAAGGAT.

56. (Added) A method for producing a DNA molecule comprising a DNA sequence encoding an $\alpha$-type interferon comprising the step of culturing a host cell containing a DNA molecule comprising the DNA sequence of claim 54 or 55 under conditions in which the host cell replicates the DNA molecule.